AMENDMENTS TO THE SPECIFICATION:

Please replace the paragraph beginning on page 6, line 12 and ending on line 13, with the following:

FIG. 8 illustrates a comparison of correlation complexity and matching complexity between the prior art and embodiments of the present invention.

FIG. 98 is an example of 16 length-16 comma-free codes that may be transmitted as the tertiary synchronization code of the present invention.

Please replace the paragraph beginning on page 6, line 17 and ending on page 7, line 14, with the following:

Referring now to FIG. 5, there is a timing diagram of a showing a sequence of first, second and third synchronization codes of the present invention. The timing diagram includes a frame of data having a predetermined number of time slots 502,504,506. This predetermined number of time slots preferably includes sixteen time slots in each frame. Each time slot, for example time slot 502 has a duration of 0.625 milliseconds. The time slot is further subdivided into equal symbol time periods. There are preferably ten symbol time periods in time slot 502. A first synchronization code (FSC) 508 is transmitted on a primary synchronization channel during a first symbol time of the time slot. A second synchronization code (SSC) 510 is transmitted on a secondary synchronization channel during the first symbol time of the time slot. A tertiary synchronization code (TSC) 512 is transmitted on a tertiary synchronization channel during the first symbol time of the time slot. Transmission of this tertiary synchronization code is accomplished via a circuit as in FIG. 1 having an additional multiplier circuit similar to circuit 104. This additional multiplier circuit receives the pseudo-noise (PN) code on lead 109 and a selected tertiary synchronization code and produces a modulated tertiary synchronization code.

Each of the sixteen secondary and tertiary synchronization codes within the frame are preferably different from each other. Sixteen of the comma free codes in a frame form a comma free code word. These synchronization codes are preferably sixteen comma free codes taken from a set or alphabet of seventeen 256-chip short codes. This set of seventeen codes is derived from a (16,2) Reed-Solomon code as is well known in the art. Each of the selected sixteen codes corresponds to a respective time slot of the corresponding data frame. The order of the sixteen selected codes provides 256 combinations or comma free code words, each having a minimum distance of 15. These comma free code words are sufficient to uniquely identify one of sixteen groups of sixteen long codes or scrambling codes transmitted by a base station. A preferred embodiment of the present invention transmits sixteen comma free code sequences from the set {SC.sub.1, SC.sub.2, . . . , SC.sub.17} on the secondary synchronization channel. An exemplary embodiment of these sixteen synchronization codes is enumerated in rows of FIG. 28. The present invention optionally transmits comma free code sequences from the set {SC.sub.18, SC.sub.19, . . . , SC.sub.34} on the tertiary synchronization channel as will be explained in detail.

Please replace the paragraph beginning on page 8, line 23 and ending on page 9, line 2, with the following:

This two-step code group identification is highly advantageous in reducing synchronization match time and complexity for expanded synchronization code group sets. When there is no TSC code, the mobile receiver need only match one of sixteen code groups and one of sixteen codes within the group for sixteen cyclic shifts of time slots within a frame. In this case, the code group match of the SSC provides frame synchronization. This yields a match complexity of 16.sup.3 or half the complexity of the prior art circuits having thirty-two codes per group, as illustrated in FIG. 8. Alternatively, when one of N distinct code words is detected on the tertiary synchronization channel, frame synchronization is completed.